

ABSTRACT OF THE DISCLOSURE

1 An omnibus connection release message transmitted from a control node of
2 radio access network is used to release plural radio connections, thereby obviating
3 problems attending transmission of plural release messages. In accordance with a first
4 example mode of the present invention, a control node of the radio access network
5 prepares the omnibus release message so that, when a first selected parameter thereof
6 has a predetermined value, all radio connections controlled by the radio network control
7 (RNC) node are released. The first selected parameter can be included in a mobile
8 terminal global identity information element of the omnibus release message (e.g., in a
9 Radio Network Temporary Identity (U-RNTI) information element of the omnibus
10 release message, such as a Serving Radio Network Temporary Identity (S-RNTI)
11 information element). In the first mode, the radio network control (RNC) node can be
12 either a serving radio network control (SRNC) node or a drift radio network control
13 (DRNC) node, and the omnibus release message is prepared upon failure of the serving
14 radio network control (SRNC) node. In accordance with a second example mode, a
15 drift radio network control node of the radio access network prepares the omnibus
16 release message so that, when the first selected parameter thereof has a first
17 predetermined value and a second selected parameter thereof has a second
18 predetermined value, all radio connections in cells controlled by the radio network
19 control node are released. In this second mode, preparation of the omnibus release
20 message occurs upon failure of the drift radio network control (DRNC) node. In an
21 example implementation of the second mode, both the first selected parameter and the
22 second selected parameter are included in a mobile terminal global identity information
23 element of the omnibus release message. For example, the first selected parameter can
24 be in a Serving Radio Network Temporary Identity (S-RNTI) information element,
25 while the second selected parameter can be included in an information element which
26 identifies a serving radio network control (SRNC) node. In illustrated implementations,
27 the omnibus release message is transmitted either on a common control channel
28 (CCCH) in a CELL_FACH state, or on a paging channel (PCH).